



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,100	12/17/2001	Hengchen Lin	Mo6853/MD-00-121-PF	2364

34469 7590 08/13/2003

BAYER CROPSCIENCE LP
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

CLARDY, S

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 08/13/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/023,100

Applicant(s)
Hengchen et al

Examiner
S. Mark Clardy

Art Unit
1616



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 22, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-10, 12-19, 21, and 23 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-10, 12-19, 21, and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

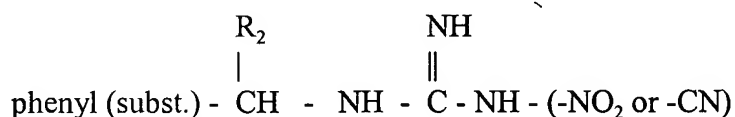
- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 1616

Claims 1, 2, 4-10, 12-19, 21, and 23 are pending in this application.

Applicants' claims are drawn to compositions, and methods of using them for plant defoliation (claims 1, 2, 4-9, 23) and inhibition of cotton leaf regrowth using guanidine compounds alone (claims 10, 13, 14), or in combination with additional agents (claims 12, 15-19, 21), the compositions comprising:

1. Nitroguanidine or cyanoguanidine¹:



2. A second component: herbicides², adjuvants, PGRs, desiccant, boll opening compounds, pesticides, fertilizers, non-guanidine defoliant.

The rejection under 35 U.S.C. 112, second paragraph, is withdrawn in response to applicants' amendment and comments.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

¹Claim 13: 1-(α -ethylbenzyl)-3-nitroguanidine, (+) and (-) isomers thereof

²Claims 1, 15: thidiazuron, diuron, ethephon, PPO inhibiting herbicides, ammonium sulfate

Art Unit: 1616

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 10, 12, 14, and 19 are again rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Arotin et al (US 4,639,268).

Arotin et al, again, teach the utility of applicants' nitro- and cyanoguanidines (see Examples 1 and 2) for desiccating and defoliating cotton plants, inducing the plants to shed their leaves and inhibit regrowth (col 5, lines 13-23; claims 7-10) and that various adjuvants could be used in customary formulations, some in amounts less than 1% (col 8, lines 23-69). Additional active agents may be combined with the guanidine compounds, including N-(substituted phenyl)-N-1,2,3-triadiazole-5-yl ureas (note that thidiazuron is within this class of compounds, but not explicitly disclosed), and other insecticidal and fungicidal agents (columns 5-8).

While the specification and claims 1 and 3 indicate that the R² group is propyl, methoxymethyl, or 2-propenyl, note that claims 7 and 8, drawn to herbicidal methods, specify the isomers claimed herein: (-)- and (+)- 1-(α -ethylbenzyl)-3-nitroguanidine. In the specification, the same isomers are separately disclosed in the compound table of example 1 (column 9, entries 7 and 9). In Table I (col 12), the same isomers are taught as having cotton defoliation utility (entries at lines 25 and 28). Finally, in Table II (col 13), the (+) and (-) isomers are compared at an application rate of 0.2 kg/ha, with the (+) isomer having a defoliation rate of 100%, and the (-) isomer somewhat less effective at 71% (entries at about lines 26 and 28).

Art Unit: 1616

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-10, 12-19, 21, and 23 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Arotin et al.

Arotin et al has been discussed above. As noted, thidiazuron is within the limited class of N-(substituted phenyl)-N-1,2,3-triadiazole-5-yl ureas, disclosed as being useful in combination with the guanidine compounds, thus it would have been obvious to have used this specific compound as claimed herein.

No unobvious or unexpected results are noted; no claim is allowed. Applicants' data repeats the comparative data as provided in Arotin et al.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and

Art Unit: 1616

invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.

A handwritten signature in black ink, appearing to read 'S. Mark Clardy', is positioned above the printed name and title.

S. Mark Clardy
Primary Examiner
AU 1616

August 11, 2003